Chegg Skills

# Applying AI in Cybersecurity

- Part-time (10 hours/week)
- 100% online
- Certificate of Completion

# Introduction

Congratulations on taking a major step in advancing your career. In this program, you'll learn key skills and best practices to use AI to effectively detect threats, manage system vulnerabilities, and optimize user authentication.

As a member of the Chegg family, we are always Student First. Backed by one of the largest ed tech companies in the world, we're committed to giving you the skills and learning support you need to grow professionally.


### Here's what you need to know:

- **Program Length:** 3 months
- **Time Commitment:** Part-time (10 hours/week)
- **Instructional Type:** Online
- **Class Schedule:** Independent study
- **Credential Awarded:** Certificate of Completion

The minimum expected time commitment for this program is estimated at 10 hours/week. Within this self-paced course, some students may progress more quickly than others.

# About the Program

Take your career to the next level with our Applying AI in Cybersecurity Certificate program. Gain valuable skills in leveraging AI to automate routine tasks, optimize privacy-oriented solutions, and embrace new tools and mindsets to thrive in an AI-driven work environment. Students working in cybersecurity roles will leave equipped to tackle cybersecurity challenges using real-world AI use cases, expand their knowledge of AI, and propel their cybersecurity forward in the era of AI.

## This program covers 5 high-level objectives:

1. **Unlock the power of AI tools in relation to cybersecurity**
2. **Apply AI to cybersecurity techniques to manage privacy**
3. **Define current issues and common use cases for AI in cybersecurity**
4. **Describe current trends and challenges associated with implementing AI in cybersecurity**
5. **Demonstrate how AI can be used to support and enhance cybersecurity operations**

Course 1

# Fundamentals of AI

Unlock the power of artificial intelligence and understand its uses throughout the web development process.

**How You'll Apply These Skills:**

Begin with an overview of the key concepts in artificial intelligence (AI), like machine learning, deep learning, large language models, natural language processing. You'll explore the pivotal role of AI in enhancing the software development process. Finally, you'll begin to delve into ethical and responsible AI usage, touching on data privacy and security to master AI effectively.

Course 2

# AI in Cybersecurity

Revisit fundamental cybersecurity concepts and their relationship to AI.

**How You'll Apply These Skills:**

Learn how AI can be applied to cybersecurity to reduce cyber risk and counter evolving cyber threats. You'll gain an understanding of the benefits and challenges associated with applying AI to cybersecurity, as well as the ethical considerations and potential risks involved. With this fundamental knowledge, you'll be equipped to explore hands-on applications of these theories.

Course 3

# AI Operations in Cybersecurity

Gain essential skills to leverage AI for cybersecurity.

**How You'll Apply These Skills:**

Get hands-on practice with using AI in threat detection and prevention, vulnerability assessment, penetration testing, and user authentication. You'll gain expertise in incident response, automation, and security analytist. You'll become proficient in using AI technologies for intrusion detection systems, anomaly detection, malware detection, network traffic analysis, threat hunting, as well as vulnerability scanning, adaptive access controls, SOC operations, and analyzing security data to extract actionable insights.

Course 4

# Issues and Use Cases for Cybersecurity

Develop skills to tackle challenges with using AI in cybersecurity.

**How You'll Apply These Skills:**

Explore important topics like privacy and ethics, cloud security, fraud detection, and more. You'll identify legal frameworks and privacy implications related to AI in cybersecurity, understand AI's role in protecting cloud-based IT environments and mitigating threats, and apply AI in fraud analytics and financial anomaly detection. Finally, you'll learn to secure IoT devices and critical infrastructure wih AI, employ AI for content moderation and user behavior analysis, and implement defense mechanisms against attacks.

Course 5

# The Future of AI in Cybersecurity

Learn skills to stay ahead in the ever-evolving field of AI and cybersecurity.

**How You'll Apply These Skills:**

Identify future trends and challenges in AI, gaining a deep understanding of how AI is shaping the cybsercurity landscape. You'll learn various methods and techniques to explain AI model deicisions in security applications to enhance transparency and trust in AI systems. You'll explore real-world use cases and industry examples to relate AI technologies to practical scenarios.

# FAQs

## What support do you offer students during the program?

Unlike Chegg Skills other programs, AI courses are a short-form certificate program that can be expected to be completed in 2 months. Students will get real-time support through our live chat platform for answers to study-related questions, access to office hours, and academic support resources to guide them through the program effectively.

## Do I need a computer to take the course?

Chegg Skills programs require a computer with high-speed internet access and video capability, including a webcam, a microphone, and speakers.  Every student must own or have access to a personal computer with at least:

- 16GB RAM
- At least 2.0 GHz processor
- At least 256 GB HD

Computers must be available prior to the first day of class. Headphones are highly recommended. Macs must have the most current OS version installed, and PCs must be using either Windows 10 (or newer Windows operating systems) or a current version of a Linux operating system.